from SPRING-2, SINGLE and FLAMINGO trials, each one of them went through a Markov chain to emulate each patient life from initial treatment to death. The health states included were: living with HIV with or without opportunistic infections, long-term chronic diseases and death. Transition probabilities for each 1-month cycle, were obtained from clinical trials. Utilities and direct health-care costs (€2015) were obtained from literature and national databases. A 3% annual discount was applied to costs and health outcomes. Sensitivity analysis with 0% and 5% discount rates were performed. **RESULTS:** Treatment initiation with DTG/ABC/3TC was dominant when it was compared with treatment initiation with all the comparators: vs. FTC/TDF/EFV (-67,210.71€/QALY), vs. DRV/r + FTC/TDF or ABC/3TC (-152,411.73€/QALY), and vs. RAL + FTC/TDF or ABC/3TC (-182,480.19€/QALY). All the sensitivity analyses performed showed the consistency of these findings. The main driver of cost was ATR-treatment (about 80%) followed by the costs of care (around 14%). **CONCLUSIONS:** With the premises considered, treatment initiation with DTG/ABC/3TC STR appears to be the most cost-effective option in ART-naïve HIV infected patients from the Spanish Health System perspective.

PIN75

COST-EFFECTIVENESS OF LEDIPASVIR/SOFOSBUVIR FOR THE TREATMENT OF GENOTYPE 1 OR 4 CHRONIC HEPATITIS C IN ENGLAND AND WALES

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OBJECTIVES: Ledipasvir/sofosbuvir (LDV/SOF; Harvoni) is a new oral single table regimen for the treatment of chronic hepatitis C (CHC) in adults. This study assessed the cost-effectiveness of LDV/SOF compared to current treatment options and 'no treatment' in England and Wales. **METHODS:** A Markov model with a lifetime horizon was constructed in Microsoft Excel® to assess cost-effectiveness of LDV/SOF. Cost-effectiveness was assessed separately for treatment-naïve (TN) and experienced (TE) patients with CHC genotype 1 (GT1) or 4 (GT4). Cycle lengths were monthly (first 18 cycles), three-monthly (until year 2), and yearly (year 3 onwards; half-cycle correction applied from year 3). Costs and utilities were discounted at 3.5%; data were sourced from published literature. Patients could enter the model in a non-cirrhotic or cirrhotic disease state. For each cycle, patients remained in their current health state, achieved a sustained virological response (equivalent to a cure), progressed to more severe disease or died. General population mortality was applied in each health state. An excess mortality risk was associated with advanced liver disease (decompensated cirrhosis, hepatocellular carcinoma, and liver transplantation). Cost-effectiveness was assessed using the incremental cost-effectiveness ratio (ICER), expressed as cost per quality adjusted life year (QALY). **RESULTS:** In GT1 TN patients without cirrhosis (8 weeks LDV/SOF treatment) and GT4 TN patients without cirrhosis (12 weeks LDV/SOF treatment), LDV/SOF was cost-effective for all comparators with ICERs of £8,894 and £22,676 versus the next most effective non-dominated option, respectively. In GT1 or GT4 TN patients with cirrhosis, TE patients without cirrhosis, and TE patients with cirrhosis, 12 week LDV/SOF was associated with ICERs of £4,518, £16,566, and £5,435 versus no treatment, respectively; all active comparators were dominated or extendedly dominated. **CONCLUSIONS:** LDV/SOF represents a cost-effective option versus established practice for GT1 and GT4 TN and TE patients with and without cirrhosis.

PIN76

TESTING FOR NS5A RESISTANCE IN ORDER TO OPTIMIZE ANTIVIRAL THERAPY WITH SIMEPREVIR AND SOFOSBUVIR 12 WEEKS APPEARS COST-EFFECTIVE IN NON-CIRRHOTIC GENOTYPE 1 HEPATITIS C VIRUS TREATMENT EXPERIENCED PATIENTS

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OBJECTIVES: Sustained virologic response (SVR) of NS5A inhibitor-containing regimens is reduced in genotype-1 hepatitis C virus (HCV) patients with NS5A resistance. The long-term persistence of NS5A resistance limits re-treatment options (Wyles et al, 2015). Latest EASL treatment guidelines recommend simeprevir+sofosbuvir with/without ribavirin (SMV+SOF±R) for re-treating patients failing a NS5A inhibitor-containing regimen. This study investigates the cost-effectiveness of NS5A resistance-testing (before treatment) to optimize treatment choice and avoid the need for re-treatment. **METHODS:** An existing lifetime Markov model was used to estimate disease progression for HCV genotype 1 patients in the UK. Patient subgroups were identified by cirrhosis stage and prior treatment experience. NS5A resistance-testing pre-treatment and subsequent treatment with SMV+SOF or sofosbuvir+ledipasvir (SOF+LDV±R) in patients with or without NS5A resistance, respectively, was compared to a 'no testing' scenario where all patients received SOF+LDV±R. SVR rates of SOF+LDV±R in patients with/without NS5A resistance were obtained from pooled phase II/III studies. SMV+SOF SVR rates, not impacted by NS5A resistance, were sourced from the OPTIMIST studies. Patient characteristics, HCV progression, mortality, resource utilization, unit costs and quality of life data were obtained from published sources. **RESULTS:** Testing for NS5A and optimizing therapy to SMV+SOF (for patients with NS5A resistance pre-treatment) yielded 0.127 additional QALYs and increased costs with ~£2000 per patient (both 3.5% discounted), resulting in an incremental cost-effectiveness ratio (ICER) of ~£15K versus 'no testing' in treatment experienced patients without cirrhosis. In these non-cirrhotic patients, optimizing therapy to receive 24 weeks of SOF+LDV±R in NS5A positive patients led to an ICER of >100K compared to optimizing with 12 weeks of SMV+SOF. **CONCLUSIONS:** NS5A resistance testing pre-treatment and subsequent optimizing therapy with SMV+SOF 12 weeks instead of SOF+LDV±R 12 weeks appeared to be cost-effective in treatment-experienced HCV patients without cirrhosis and with NS5A resistance. Optimizing with SOF+LDV±R 24 weeks was not deemed cost-effective.

PIN77

ECONOMIC EVALUATIONS IN INFECTIOUS DISEASE: WHICH INFECTIONS, WHAT SETTINGS AND WHAT TYPE OF ECONOMIC EVALUATIONS WERE REPORTED IN PAPERS PUBLISHED IN 2014?

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OBJECTIVES: To determine the focus of economic evaluation papers relevant to infectious diseases that were indexed in the PubMed database and published in 2014. **METHODS:** An evidence surveillance process was established based on a systematic search of PubMed, using key words relevant to economic modelling in healthcare or disease and limited to studies published in English, in humans, and with abstracts. Articles were included if they analysed the cost-effectiveness of interventions, healthcare service design or methodological issues related to one or more infectious disease. We included all studies with a publication date of 2014 that were indexed in PubMed up to 8 June 2015. **RESULTS:** The search identified 2,772 articles published in 2014. Of these, 148 were conducted in patients with infectious diseases. Most (32 articles) were in HIV-infected people, 14 articles were in those with hepatitis C, 13 in tuberculosis, 9 in human papilloma virus infection, 7 in pneumonia, and 6 each in influenza and hepatitis B. Twenty-five analyses were set in African countries, mainly on HIV (11 articles) and malaria (4). The 24 analyses in Asia were more diverse, with only 3 each on HIV and tuberculosis. The 30 European analyses were also diverse, with 5 on hepatitis C, 4 each on HIV and pneumonia, and 3 on hospital-acquired infections. Of the 35 North American analyses, 8 related to hospital-acquired infections, 6 to hepatitis C, 4 to hepatitis B, and only 2 each on HIV or tuberculosis. Cost-utility analyses were reported in 58 articles and cost-effectiveness in 43, and only 11 abstracts stated that indirect costs were modelled. **CONCLUSIONS:** Infectious diseases were the most common disease class to be evaluated for cost-effectiveness in our search for studies published in 2014, with a geographical focus that reflects the relevant epidemiology. Despite potential societal costs from pandemics or chronic infection, evaluations rarely considered indirect costs.

PIN78

PHARMACOEPIDEMIOLOGIC MODELING OF TREATMENT HIV-INFECTED PATIENTS WITH RILPIVIRINE/ TENOFOVIR/ EMTRICITABIN (SINGLE TABLET REGIMEN) IN RUSSIA

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OBJECTIVES: To obtain potential pharmacoepidemiologic outcomes of rilpivirine/ tenofovir/ emtricitabin (single tablet regimen) in treatment of naïve patients with HIV-1 RNA<100 000 copies/ml in the Russian Federation. **METHODS:** The developed model was by nature a mathematical one. It was based on published data from international researches (efficacy data), from local researches in Eastern Europe (data on probability of death and disease progression, sexual behavior), and from researches in the Russian Federation (data on HIV-infected patient population, life expectancy etc.). The model included analysis of viral transmission via sexual contact and/or injection drug use. The influence of character of sexual contact, condom effectiveness and efficacy of three schemes of highly active antiretroviral treatment was taken into account. The time-horizon was 5 years. **RESULTS:** Treatment of naïve HIV-infected patients with rilpivirine/ tenofovir/ emtricitabin leads to potential smaller number of new infected persons in long term perspective than with efavirenz + tenofovir/ emtricitabin (multi-pill regimen) and lopinavir + tenofovir/ emtricitabin (multi-pill regimen) by a term of order 13% (9570 new HIV-patients less) and 10% (7262 new HIV-patients less), respectively. **CONCLUSIONS:** Obtained results approves the use of rilpivirine/ tenofovir/ emtricitabin (single tablet regimen) in similar to analyzed patient populations due to the potential lower number of new HIV-patients as compared to multi-pill regimens: efavirenz + tenofovir/ emtricitabin and lopinavir + tenofovir/ emtricitabin.

PIN79

THE EPIDEMIOLOGICAL AND COST BURDEN OF HERPES ZOSTER (HZ) AND POST-HERPETIC NEURALGIA (PHN) IN THE UK

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OBJECTIVES: This retrospective database analysis aimed to update epidemiological and cost estimates related to HZ and PHN in adults from the perspective of the UK National Health Service (NHS). **METHODS:** Adults (18+) diagnosed with HZ between 2006 and 2013 were identified from The Health Improvement Network (THIN) linked to the Hospital Episode Statistics (HES) database. Unit costs were assigned from the British National Formulary, PSSRU Unit Costs of Health and Social Care and NHS Payment Grouper. **RESULTS:** 27,362 patients with HZ were identified, corresponding to an incidence of 4.12% in the adult population. Average age at HZ diagnosis was 60.4. 137,674 HZ cases occurred in immunocompetent patients aged 50 or more. 21% of HZ patients developed PHN at least 3 months after HZ diagnosis. The mean duration of PHN was 13 months. In the first month of diagnosis, the mean cost of HZ per patient was £65.5 (61% visits, 29% medications, 10% hospitalisations). The mean cost of PHN per patient was £921 (63% visits, 37% medications and less than 1% hospitalisations), the mean monthly cost was £58.7. The total cost associated with incident cases of HZ and PHN over a year was estimated at £52,543,827 in the UK. PHN was the most important driver of cost (72% of total). **CONCLUSIONS:** This study re-affirms the significant burden of HZ and PHN on the UK health care system and shows that the mean age of HZ onset is significantly lower than current recommended age for HZ vaccination.

PIN80

PUBLIC HEALTH AND ECONOMIC BENEFITS OF QUADRIVALENT INFLUENZA VACCINE IN PANAMA

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